

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No.: 10/054,604
Appellant: Unno
Filed: November 13, 2001
TC/AU: 2655
Examiner: Opsasnick

Confirmation No.: 7107

Docket: TI-29771
Cust. No.: 23494

APPELLANT'S BRIEF

Commissioner for Patents
P.O.Box 1450
Alexandria VA 22313-1450

Sir:

The attached sheets contain the Rule 41.37 items of appellant's brief; this brief is pursuant to MPEP 1204.01 (Reinstatement of Appeal). The fee for filing a brief in support of the appeal has previously been paid; and the Commissioner is hereby authorized to charge any other necessary fees to the deposit account of Texas Instruments Incorporated, account No. 20-0668.

Respectfully submitted,

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Rule 41.37(c)(1)(i) Real party of interest

Texas Instruments Incorporated owns the application.

Rule 41.37(c)(1)(ii) Related appeals and interferences

There are no related dispositive appeals or interferences.

Rule 41.37(c)(1)(iii) Status of claims

Claims 1-5 are pending in the application with claims 1-2 allowed and claims 3-5 finally rejected. This appeal involves the finally rejected claims.

Rule 41.37(c)(1)(iv) Status of amendments

There is no amendment after final rejection.

Rule 41.37(c)(1)(v) Summary of claimed subject matter

The claims 3-5 inventions relate to layered speech encoding and decoding in which a base layer provides a low resolution version and successive higher layers add enhancement detail.

Application Fig.1 shows a preferred embodiment layered encoder with perceptual filter ("PWFx") changes between layers (claim 3), and Fig.2a shows the corresponding prior art layered encoder (MPEG-4) without filter changes. Application page 6, section (3) describes the perceptual filters.

Application Fig.2b shows layered decoding with a generic post-filter. Application page 11, section (7) describes the preferred embodiment short-term post-filter as dependent upon the number of layers decoded (claim 4); and page 12, section (8) describes the preferred embodiment long-term post-filter (claim 5).

Rule 41.37(c)(1)(vi) Grounds of rejection to be reviewed on appeal

The grounds of rejection to be reviewed on appeal are:

(1) Claims 3-5 were rejected as unpatentable over application Figs.2a-2b plus related text in view of the Gao reference.

Rule 41.37(c)(1)(vii) Arguments

(1) Claims 3-5 were rejected as unpatentable over application Figs.2a-2b plus related text in view of Gao.

With regard to claim 3, the Examiner cited Gao generally for varying filtering with varying coding types plus column 54, lines 1-4 for weaker filters as making obvious the different perceptual filter strength for different encoding layers in claim 3.

Appellant replies that Gao has an explicit perceptual filter discussion in section 3.6 (column 34, line 65 to column 35, line 33), and there is no suggestion of differing filter strength among the different coders of Gao. Furthermore, Gao switches among separate coders for different bitrates (see Fig.1), so there is no suggestion of applying Gao to a layered coder because the approaches of Gao and layered coding conflict. Lastly, Gao column 54, lines 1-4 relates to a spectral filter for the excitation, not a perceptual filtering.

With regard to claim 4, the Examiner relied upon the analysis of Gao in the claim 3 argument plus column 53, line 60 to column 54, line 5 for weaker filters.

Appellant repeats the foregoing argument that the switching among coders of Gao conflicts with layered coding of Figs.2a-2b and that Gao column 53, line 60 to column 54, line 5 relates to the excitation encoding, not the decoding of claim 4. So there is no suggestion of claim 4.

With regard to claim 5, the Examiner relied upon the analysis of Gao in the claim 3 argument plus column 59, lines 23-36 for postfiltering.

Appellant repeats the foregoing argument that the switching among coders of Gao conflicts with layered coding of Figs.2a-2b. So there is no suggestion of claim 5.

Consequently, the application Figs.2a-2b layered coding plus Gao do not suggest any of claims 3-5, and the claims are patentable over the references.

Rule 41.37(c)(1)(viii) Claims appendix

3. A layered encoder, comprising:

- (a) an estimator for each layer of a layered encoder; and
- (b) perceptual filters including inverse filters for each layer, wherein at least one of said layer perceptual filters is weaker than another of said layer perceptual filters.

4. A method of decoding a layered encoded signal, comprising:

- (a) applying a short-term postfiltering to a synthesized layered encoded signal wherein the short-term postfiltering differs for at least two of the number of layers decoded to form said synthesized layered encoded signal.

5. A method of decoding a layered encoded signal, comprising:

- (a) applying a long-term postfiltering to a synthesized layered encoded signal wherein the long-term postfiltering is independent of the number of layers decoded to form said synthesized layered encoded signal.

Rule 41.37(c)(1)(ix) Evidence appendix

n/a

Rule 41.37(c)(1)(x) Related proceedings appendix

n/a